

REMARKS

Claims 1-27 and 33-34 remain in the Application. Reconsideration of these Claims is hereby requested. In the Office Action mailed on January 27, 2006, the Examiner:

- (i) Objected to Claims 1, 22 and 33-34 for certain informalities;
- (ii) Rejected Claim 23 under 35 U.S.C. § 112 as indefinite;
- (iii) Rejected Claims 1, 3, 5, 7, 12-13, 15, 17, 22-23 and 27 under 35 U.S.C. § 102(b) as anticipated by “Le Chatelier et al.”;
- (iv) Rejected Claims 2, 4, 6, 8-11, 14, 16, 18-21 and 24-26 under 35 U.S.C. §103(a) as being obvious over “Le Chatelier et al.”;
- (v) Rejected Claims 33 and 34 under 35 U.S.C. §103(a) as being obvious over “Le Chatelier et al.” in view of “Ingram (‘949)”; and
- (vi) Provisionally rejected Claims 1, 3-5, 7-8, 10-13, 15, 17-20, 22-27 and 33-34 as claiming the same invention as certain claims of Application No. 10/794,942 (“double patenting”).

Applicants have considered the Office Action and have amended the Claims. Based upon the amendments and the following remarks, Applicants respectfully submit that the claims remaining in the application, that is, Claims 1-27 and 33-34, are in condition for allowance.

I. **The Provisional Rejection Based on Double Patenting Is Moot.**

The Examiner provisionally rejected Claims 1, 3-4, 7-8, 10-13, 15, 17-20, 22-27 and 33-34 under 35 U.S.C. § 101 as claiming the same invention as that of Claims 14, 15-16, 17-18, 19-21, 23, 24-27, 1-6 and 12-13, respectively, of Application No. 10/794,942. The Examiner also provisionally rejected Claim 5 under nonstatutory obviousness-type double-patenting over Claim

17 of Application No. 10/794,942. The Examiner stated that both of these double-patenting rejections are provisional since the claims in Application No. 10/794,942 have not been patented.

A Notice of Abandonment for Application No. 10/794,942 was mailed on May 11, 2006.

Applicants respectfully submit that the Notice of Abandonment for Application No. 10/794,942 renders the double-patenting rejections moot.

II. The Objections to Claims 1, 22 and 33-34 Have Been Overcome.

The Examiner objected to the use of the term “via” in Claims 1 and 22. Applicants have amended Claims 1 and 22, replacing the term “via” with the phrase “by means of”.

The Examiner stated that a hyphen (-) should be inserted between the terms “tee” and “fitting” in Claims 33 and 34. Applicants have amended Claims 33 and 34, and have inserted a hyphen (-) between the terms “tee” and “fitting”.

The Examiner stated that the terms “bulk” and “head” in Claim 33 should be replaced with the term “bulkhead”. Applicants have amended Claim 33, replacing the terms “bulk” and “head” with the term “bulkhead”.

Applicants respectfully submit that the aforementioned amendments to Claims 1, 22 and 33-34 overcome the objections.

III. The Rejection of Claim 23 Under 35 U.S.C. § 112 Is Improper.

The Examiner rejected Claim 23 under 35 U.S.C. § 112 as indefinite. Specifically, the Examiner stated that “Claim 2 [sic] is indefinite due to the fact that it is unclear from what element of the invention the control unit accepts direct input about the target air pressure.” (Office Action at Page 2, ¶ 3.) Applicants respectfully submit that Claim 23 particularly points

out and distinctly claims Applicants invention, since the phrase “wherein said control unit accepts direct input of a target air pressure setting for said tire” is a proper functional limitation.

More particularly, as stated in M.P.E.P. § 2173.05(g), “A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.” Claim 23 recites that the tire inflation system of independent Claim 22 further comprises a control unit that is operatively connected to the first and second valves and the first and second pressure indicators recited in Claim 22. Therefore, the particular element of the invention recited in Claim 23 is the control unit. The phrase “wherein said control unit accepts direct input of a target air pressure setting for said tire” defines one of the capabilities of the control unit, that is, the acceptance of direct input of a target air pressure setting.

Applicants therefore respectfully submit that Claim 23, by reciting an element with a functional limitation as set forth by M.P.E.P. § 2173.05(g), is proper.

IV. Claims 1, 3, 5, 7, 12-13, 15, 17, 22-23 and 27 Are Not Anticipated by Le Chatelier.

The Examiner rejected Claims 1, 3, 5, 7, 12-13, 15, 17, 22-23 and 27 under 35 U.S.C. § 102(b) as anticipated by “Le Chatelier et al.”. Applicants believe that, based on the listing of references accompanying the Office Action, “Le Chatelier et al.” is U.S. Patent No. 4,872,879, and respond on that basis. Applicants respectfully submit that Le Chatelier does not anticipate independent Claim 1 or independent Claim 22, and therefore does not anticipate Claims 3, 5, 7, 12-13, 15 and 17, which depend directly or indirectly from independent Claim 1, or Claims 23 and 27, which depend directly from independent Claim 22.

For a reference to anticipate a claim, the reference must disclose each limitation of the claim. *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985). Moreover, each limitation as disclosed in the reference must be arranged as in the claim. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). That is, the components or steps disclosed in the reference must have the same structure as the claim limitations and must be understood by one skilled in the art to function in the same way as the claim limitations. *Applied Medical Resources Corp. v. U.S. Surgical Corp.*, 147 F.3d 1374, 1380, 47 U.S.P.Q.2d 1289 (Fed. Cir. 1998).

A. Claim 1 Is Not Anticipated by Le Chatelier.

The Examiner asserts in the Office Action that Le Chatelier anticipates Claim 1 based on the description set forth in Le Chatelier from column 8, line 36 through column 9, line 31. Applicants respectfully submit that Le Chatelier does not anticipate Claim 1, since Le Chatelier discloses a system that is an inflate/deflate system, which is different in structure and function from the method of tire inflation that is used in a tire inflation system as recited in Claim 1. More particularly, it is clear that Le Chatelier discloses an inflate/deflate system, since the reference describes how its system reduces tire pressure (at col. 8, l. 57 - col. 9, l. 5), and states that the system is able to deflate a tire after inflation has been performed. (Col. 9, ll. 18-20.) In contrast, the method recited in Claim 1 specifically recites a method of tire inflation, rather than inflation and deflation. A system that performs inflation, as recited in Claim 1, is different in structure and function than a system that performs both inflation and deflation, as disclosed by Le Chatelier.

Such differences in structure and function between Claim 1 and Le Chatelier are borne out by the differences in the steps of the method recited in Claim 1 and the disclosure of Le

Chatelier. For example, the method recited in Claim 1 includes the step of determining an inflation pressure of the tire with a step-up procedure. As explained in Applicants' specification, the step-up procedure employs small bursts of air to determine the pressure of the tire in order to avoid elevating the pressure in the tire over a target inflation pressure. (See, e.g., page 17, l. 16 – page 18, l. 16.) The step-up procedure is used because Applicants' system involves tire inflation, rather than deflation. In contrast, Le Chatelier does not disclose any such step-up procedure, instead emitting "a brief high-pressure pulse" to measure the tire pressure. (Col. 8, ll. 44-56.) If that pulse causes the tire pressure to exceed the desired tire pressure, the inflate/deflate system of Le Chatelier performs a deflation procedure (col. 8., l. 57 – page 9, l. 5 and page 9, ll. 18-20.), which Applicants' invention does not perform.

For these reasons, Applicants respectfully submit that Le Chatelier does not disclose the limitations recited in Claim 1, and thus does not anticipate the Claim.

B. Claim 22 Is Not Anticipated by Le Chatelier.

The Examiner asserts in the Office Action that Le Chatelier discloses the structure recited in independent Claim 22 and thereby anticipates the Claim. However, Applicants respectfully submit that Le Chatelier does not anticipate Claim 22, since Le Chatelier discloses an inflate/deflate system, in contrast to the tire inflation system recited in Claim 22. As discussed above, a tire inflation system as recited in Claim 22 is different in structure and function than an inflate/deflate system as disclosed by Le Chatelier.

For example, Claim 22 recites the element of a second valve, and the second valve includes an open position and a closed position. Claim 22 further recites that, when the second valve is in the open position, air passes between second and third portions of the pneumatic conduit, and when the second valve is in the closed position, air vents from a third portion of the

pneumatic conduit to atmosphere. In the Office Action, the Examiner equates component 128 of Le Chatelier to the second valve recited in Claim 22. (See Office Action, at page 3, ¶ 5.) However, Le Chatelier states that component 128 is “a three-way selecting electrovalve 128”. (Col. 7, l. 64.) As shown in Fig. 3, electrovalve 128 of Le Chatelier does not vent air when it is in a closed position, as recited in Claim 22.

Therefore, Applicants respectfully submit that Le Chatelier does not disclose the limitations of Claim 22 and thus does anticipate the Claim.

C. Claims 3, 5, 7, 12-13, 15, 17, 23 and 27 Are Not Anticipated by Le Chatelier.

Applicants respectfully submit that, since Claim 1 is not anticipated by Le Chatelier, and dependent Claims 3, 5, 7, 12-13, 15 and 17 incorporate all of the limitations of Claim 1, Claims 3, 5, 7, 12-13, 15 and 17 also are not anticipated by Le Chatelier. *See* 37 C.F.R. § 1.75(c). Moreover, since Claim 22 is not anticipated by Le Chatelier, and dependent Claims 23 and 27 incorporate all of the limitations of Claim 22, Claims 23 and 27 also are not anticipated by Le Chatelier.

V. Claims 2, 4, 6, 8-11, 14, 16, 18-21 and 24-26 Are Not Obvious Over Le Chatelier.

The Examiner rejected Claims 2, 4, 6, 8-11, 14, 16, 18-21 and 24-26 under 35 U.S.C. §103(a) as being obvious over Le Chatelier. Claims 2, 4, 6, 8-11, 14, 16, 18-21 depend directly or indirectly from independent Claim 1, while Claims 24-26 depend directly or indirectly from independent Claim 22. Applicants respectfully submit that, because independent Claims 1 and 22 are not obvious over Le Chatelier, dependent Claims 2, 4, 6, 8-11, 14, 16, 18-21 and 24-26 also are not obvious over Le Chatelier.

It is well settled that if an independent claim is not obvious, then any claim depending therefrom is not obvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). For an obviousness rejection to be valid, all of the words in a claim must be taught by the reference. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). *In re Wilson*, 424 F.2d 1382, 1385 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Moreover, if the purpose of the reference is different than that of the claimed invention, the reference teaches away from the claimed invention and therefore does not render the invention obvious. *In re Haruna*, 249 F.3d 1327, 58 U.S.P.Q.2d 1517, 1522 (Fed. Cir. 2001).

Applicants respectfully submit that, for the reasons provided in Section IV above, Claims 1 and 22 are not obvious in view of Le Chatelier, and therefore, the claims depending from Claims 1 and 22 are not obvious. More particularly, Le Chatelier discloses a system that is an inflate/deflate system having the express purpose of “controlling hydraulic or pneumatic pressure for regulating, reducing or increasing the pressure in a chamber, such as a jack or a vehicle tire.” (Col. 1, ll. 8-11, emphasis added.) In contrast, the method recited in Claim 1 is a method of tire inflation, not deflation, and the apparatus recited in Claim 22 is tire inflation system, not an inflate/deflate system. Therefore, the express purpose of Le Chatelier, to inflate and deflate, is different from that of the invention recited in Claims 1 and 22, and thus teaches away from the Claims. Applicants respectfully submit that, on this basis alone, Le Chatelier does not render Claim 1 or Claim 22 obvious.

Applicants also respectfully submit that Le Chatelier does not teach all of the words in Claims 1 and 22. For example, as described above, the method recited in Claim 1 includes the step of determining an inflation pressure of the tire with a step-up procedure, and Le Chatelier does not disclose any such step-up procedure. Regarding Claim 22, also as described above, the

Claim recites the element of a second valve, which includes an open position and a closed position, and that when the second valve is in the open position, air passes between second and third portions of the pneumatic conduit, and when the second valve is in the closed position, air vents from a third portion of the pneumatic conduit to atmosphere. However, component 128 of Le Chatelier, which the Examiner compares to the second valve recited in Claim 22, is a three-way electrovalve that does not vent air when it is in a closed position. Applicants therefore respectfully submit that Le Chatelier does not teach all of the words in Claims 1 and 22 and thus does not render these Claims obvious.

Since independent Claim 1 is not obvious in view of Le Chatelier, Applicants respectfully submit that Claims 2, 4, 6, 8-11, 14, 16, 18-21, which depend therefrom, also are not obvious in view of Le Chatelier. In addition, since independent Claim 22 is not obvious in view of Le Chatelier, Applicants respectfully submit that Claims 24-26, which depend therefrom, also are not obvious in view of Le Chatelier.

VI. Claims 33 and 34 Are Not Obvious Over Le Chatelier in View of Ingram ('949).

The Examiner rejected Claims 33 and 34, which depend from independent Claim 22, under 35 U.S.C. §103(a) as being obvious over Le Chatelier in view of "Ingram ('949)". Applicants believe that, based on the listing of references accompanying the Office Action, "Ingram ('949)" is U.S. Patent No. 5,584,949, and respond on that basis.

In making the rejection, the Examiner relied on Le Chatelier as applied to Claims 1-6 and 14-27, and applied Ingram ('949) for the additional limitations recited in Claims 33 and 34. Applicants respectfully submit that, for the reasons set forth above, independent Claim 22 is not

Appl. No. 10/827,040
Andt. Dated July 27, 2006
• Reply to Office Action of January 27, 2006

obvious in view of Le Chatelier. Therefore, reliance on Le Chatelier for the rejection of Claims 33 and 34 is improper, which thereby overcomes the rejection.

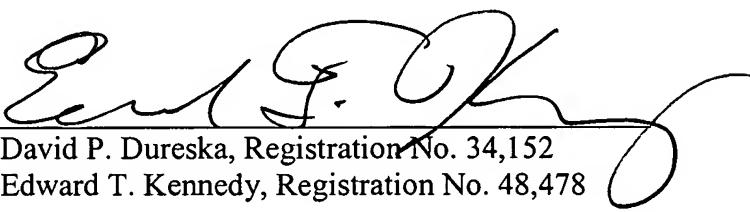
VIII. Conclusion.

The results produced by Applicants' invention have long been sought after by those skilled in the art, but up until Applicants' invention, the results have been unobtainable. By distinctly reciting new and non-obvious aspects of the invention in Claims 1-27 and 33-34, it is believed that the rejections have been overcome.

In view of the above, it is submitted that the claims remaining in the application now are in condition for allowance. Reconsideration of the rejections is respectfully requested and allowance of Claims 1-27 and 33-34 at an early date is hereby respectfully solicited.

Respectfully submitted,

BUCKINGHAM, DOOLITTLE & BURROUGHS, LLP

By: 

David P. Dureska, Registration No. 34,152
Edward T. Kennedy, Registration No. 48,478

4518 Fulton Drive, N.W.
P.O. Box 35548
Canton, OH 44735-5548
Telephone: (330) 491-5218
Facsimile: (330) 252-5216
E-Mail: ekennedy@bdblaw.com
Attorney Docket No.: HEND-BC-REG-CIP (45007-281)

«CT2:509367_v1»